IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of processing a substrate comprising:

thermally growing a first ultra-thin oxide layer of less than 15Å in total thickness ~~approximately 5Å-10Å~~ on a surface of the substrate to consume defects in a surface region of the substrate;

without forming further oxide on the first ultra-thin oxide layer, etching away the first ultra-thin oxide layer to remove at least some of said consumed defects from the substrate and reveal a subsurface of said substrate;

thermally growing a second ultra-thin oxide layer of less than 15Å in total thickness ~~approximately 5Å-10Å~~ on said subsurface of said substrate to consume more defects in said surface region of the substrate;

without forming further oxide on the second ultra-thin oxide layer, etching away the second ultra-thin oxide layer to remove at least some of said consumed more defects from the substrate;

monitoring said surface region of the substrate for additional defects; and

repeatedly thermally growing an ~~addition~~ additional ultra-thin oxide layer of less than 15Å in total thickness ~~approximately 5Å-10Å~~ to consume the additional defects and, without forming further oxide on the additional ultra-thin oxide layer, etching the additional ultra-thin oxide layer to remove the consumed additional defects to provide a substantially ~~contain~~ contaminant free substrate surface based on said monitoring of said surface region ~~wherein at least one of the etching steps comprises a plasma etch process~~; and

performing further processing to the substantially contaminant free substrate surface without exposing the substrate to an ambient environment.

Claim 2 (Currently Amended): The method of Claim 1, wherein said growing first and second ultra-thin oxide layers each comprise growing an oxide layer having a thickness of between approximately 5Å and approximately 10Å.

Claim 3 (Cancelled).

Claim 4 (Previously Presented): The method of Claim 1, wherein said monitoring comprises using high-resolution transmission electron microscopy (HRTEM) data.

Claim 5 (Original): The method of Claim 1, wherein the substrate comprises silicon.

Claim 6 (Original): The method of Claim 1, wherein the substrate comprises at least one of silicon and a silicon alloy.

Claim 7 (Original): The method of Claim 1, further comprising forming an additional layer on one of said first and second oxide layer using at least one of a thin film deposition process, an oxidation process, and an implantation process.

Claim 8 (Original): The method of Claim 1, wherein at least one of said etching steps comprises a dry vapor etch process.

Claim 9 (Canceled).

Claim 10 (Original): The method of Claim 1, wherein at least one of said etching steps comprises using a gas including at least one of a hydrogen containing gas, a fluorine containing gas, and a chlorine containing gas.

Claim 11 (Original): The method of Claim 10, wherein said using a gas comprises using a gas comprising at least one of HF, H2, F2, and C1F3.

Claim 12 (Original): The method of Claim 1, further comprising processing a plurality of substrates including said substrate, wherein each of said growing steps and each of said etching steps is performed on each of said plurality of substrates.

Claim 13-16 (Cancelled).

Claim 17 (Previously Presented): The method according to Claim 1, wherein said monitoring includes the imaging of a surface of the substrate after removal of one of said ultra-thin oxide layers.

Claim 18 (Previously Presented): The method according to Claim 5, wherein said monitoring includes the imaging of a silicon lattice at a surface of the substrate after removal of one of said ultra-thin oxide layers.

Claim 19 (Previously Presented): The method of Claim 17, wherein said imaging comprises using high-resolution transmission electron microscopy (HRTEM) data.

Claim 20 (Previously Presented): The method of Claim 18, wherein said imaging comprises using high-resolution transmission electron microscopy (HRTEM) data.

Claim 21 (Previously Presented): The method of Claim 1, wherein said substrate comprises silicon germanium.

Claim 22 (Previously Presented): The method of Claim 21, wherein at least one of said growing steps comprises a plasma assisted process.

Claim 23 (Previously Presented): The method of Claim 22, wherein each of said growing and etching steps comprises a plasma assisted process.

Claim 24 (New): A method of processing a substrate comprising:

thermally growing a first ultra-thin oxide layer of approximately 5Å - 10Å in total thickness on a surface of the substrate to consume defects in a surface region of the substrate;

without forming further oxide on the first ultra-thin oxide layer, etching away the first ultra-thin oxide layer to remove at least some of said consumed defects from the substrate and reveal a subsurface of said substrate;

thermally growing a second ultra-thin oxide layer approximately 5Å - 10Å in total thickness -on said subsurface of said substrate to consume more defects in said surface region of the substrate;

without forming further oxide on the second ultra-thin oxide layer, etching away the second ultra-thin oxide layer to remove at least some of said consumed more defects from the substrate;

monitoring said surface region of the substrate for additional defects; and

repeatedly thermally growing an additional ultra-thin oxide layer of approximately 5Å - 10Å in total thickness to consume the additional defects and, without forming further oxide on the additional ultra-thin oxide layer, etching the additional ultra-thin oxide layer to remove the consumed additional defects to provide a substantially contaminant free substrate surface based on said monitoring of said surface region; and

performing further processing to the substantially contaminant free substrate surface without exposing the substrate to an ambient environment.